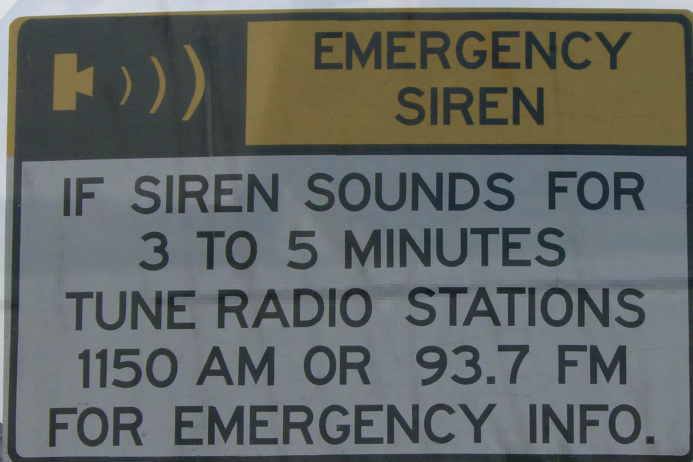


Salem and Hope Creek Nuclear Generating Stations

Emergency Evacuation Traffic Operations Manual



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1.0 INTRODUCTION

This manual provides traffic operations guidance for State of Delaware personnel responding to an accident occurring at the Salem and Hope Creek Nuclear Generating Stations. It is designed to manage traffic patterns around areas affected by a radiological emergency, manage the traffic exiting the affected area and control the access to the affected area after an evacuation. It should be used in conjunction with Standard Operating Procedure (SOP) 700 and SOP 1200, which can be found in the Delaware Radiological Emergency Plan.

While this document provides guidance on evacuating the entire emergency response planning area within ten radial miles of the Salem and Hope Creek Nuclear Generating Stations, it should be noted that adjustments could occur during an actual evacuation. For example, wind speed and direction could preclude certain evacuation routes or access control points from being utilized. Emergency response officials should check with the State Emergency Operations Center at DEMA where data is being collected from the radiation monitoring stations for timely radiation measurements to assist with evacuation route and traffic control decisions.

1.1 EMERGENCY RESPONSE PLANNING AREAS (ERPAs)

The area that falls within ten radial miles of the Salem and Hope Creek Nuclear Generating Stations is divided into four emergency response planning areas (ERPAs). For reference, two figures are provided. Figure 1.1 shows the ERPAs located within five radial miles of the Generating Stations and Figure 1.2 shows the ERPAs located within ten radial miles.

1.1.1 ERPA A

ERPA A includes the areas of Port Penn, Odessa, East of Townsend, North Smyrna and South St. George's. Its boundaries include Routes 13, 299, and 9 to the west; the Delaware River to the east; the Chesapeake and Delaware Canal to the north; and Route 6 to the south.

1.1.2 ERPA B

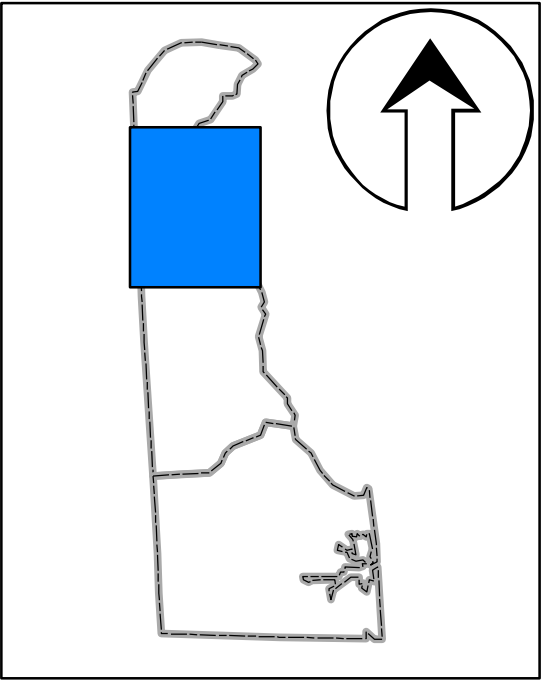
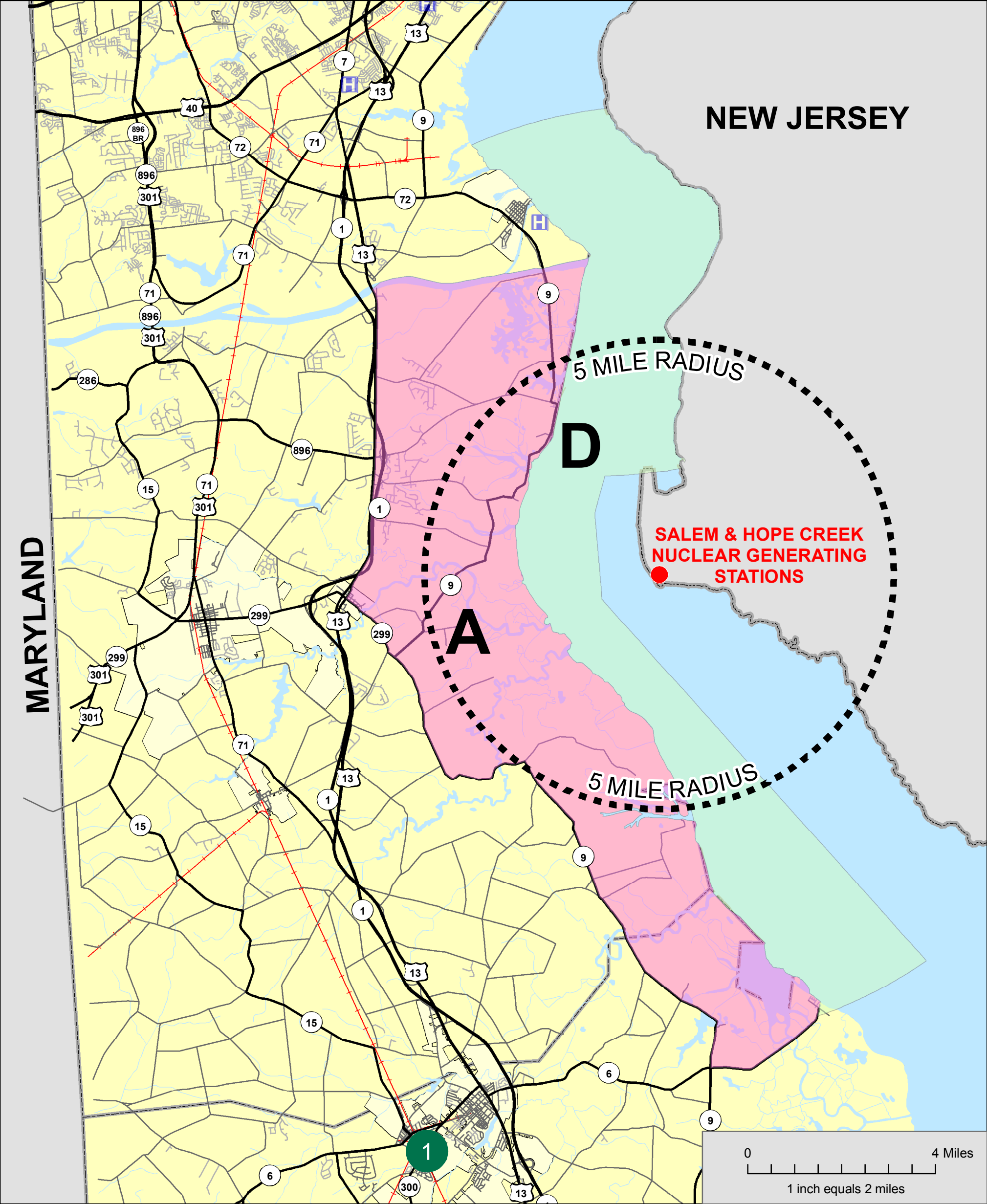
ERPA B includes the areas of Middletown, East of Townsend and North Smyrna. Its boundaries include the Norfolk Southern Railroad to the west; Route 9 to the east; Route 299 to the north; and Route 6 and Smyrna Landing Road to the south

1.1.3 ERPA C

ERPA C includes the areas of Delaware City, North Middletown, St. George's and Reybold. It includes the area bounded to the north of Route 299 by Kirkwood St. George's Road; to the east of Norfolk Southern Railroad to Route 13; to the south of Red Lion Creek and east of Route 9; to the south of the Norfolk Southern Railroad and east of Route 13 to the Chesapeake and Delaware Canal; to the south of Route 72 and east of McCoy Road to Route 13.

1.1.4 ERPA D

ERPA D includes the Delaware River and Bay. The boundaries include the area just north of Pea Patch Island near Delaware City to Woodland Beach.



Legend

Generating Stations

Hospital

S. Reception Center

Railroad

Five Mile Radius

ERPA Boundaries

A

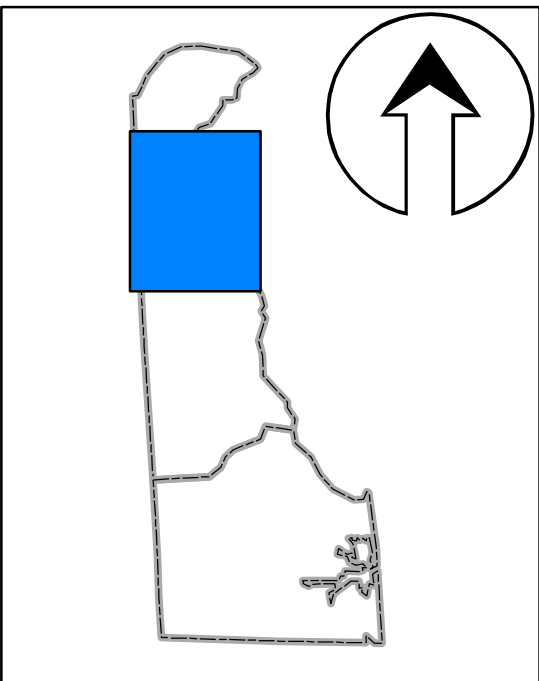
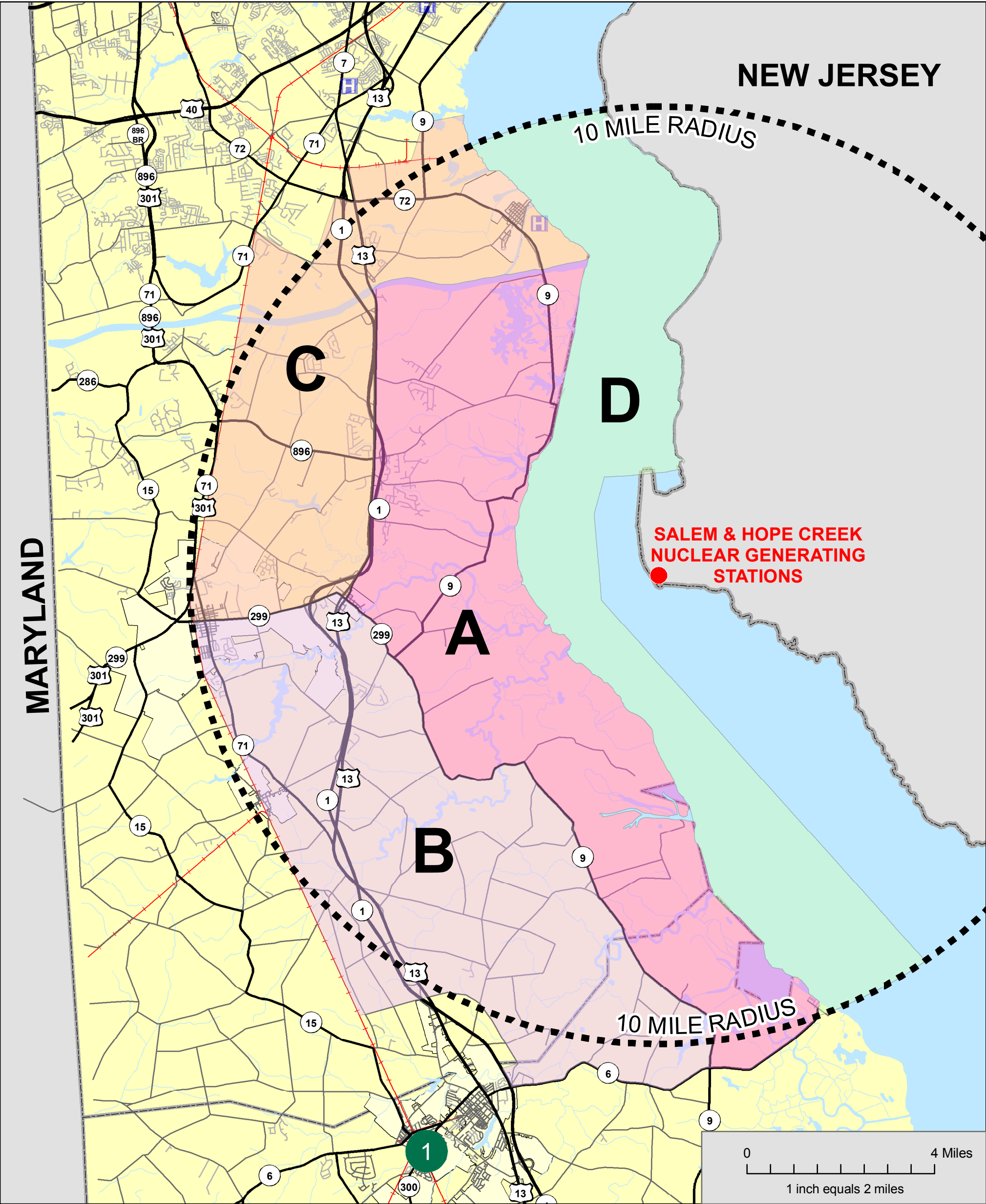
D

JACOB'S
Edwards and Kelcey

**SALEM & HOPE CREEK
NUCLEAR GENERATING
STATIONS**

**5 Mile Radius
Emergency
Evacuation Plan
Figure 1.1**

Overview



Legend

Generating Stations	ERPA Boundaries
Hospital	A
S. Reception Center	B
Railroad	C
Ten Mile Radius	D

JACOBS
Edwards and Kelcey

SALEM & HOPE CREEK NUCLEAR GENERATING STATIONS

10 Mile Radius
Emergency
Evacuation Plan
Figure 1.2

Overview

1.2 KINDS OF EMERGENCIES

There are four possible emergency categories ranging from minor to serious: unusual event, alert, site area emergency, and general emergency.

1.2.1 Unusual Event

A minor problem has taken place. No release of radioactive matter is expected. Federal, state and county officials will be notified. The public will not have to do anything.

1.2.2 Alert

This is also a minor problem. Small amounts of radioactive matter could be released inside the plant. Officials will be notified and asked to stand by. Most likely, the public will not have to do anything.

1.2.3 Site Area Emergency

This is a more serious problem. Small amounts of radioactive matter could be released into the area near the plant. Sirens may be sounded, which means state officials have important emergency information available for the public. Information from state officials will be broadcast on one of the Emergency Alert System (EAS) radio stations.

1.2.4 General Emergency

This is the most serious kind of problem. Radioactive matter could be released outside the plant. Proactive measures may have to be taken. Sirens will be sounded. Information from state officials will be broadcast on one of the EAS radio stations.

2.0 ACCESS CONTROL POINTS

Access control points are pre-designated and have an alert notification sign posted to ensure positive control of the five and ten-mile Emergency Planning Zones (EPZ). The Delaware State Police (DSP) utilize these locations to manage traffic exiting the affected area. Evacuees needing directions to the Reception Centers should be provided a copy of the Evacuee Instruction Sheet contained in Section 4. When emergency precautions are ordered and/or when the affected area has been evacuated, only authorized personnel and equipment are allowed to enter.

The predetermined access control points have been divided into those for the five-mile zone (Figure 2.2) and those for the ten-mile zone (Figure 2.3). The purpose of the five-mile access control points is to restrict access to ERPA A. An evacuation would occur in stages, and within a matter of time, the ten-mile access control points would also be implemented to restrict access to all ERPAs. The barricades set-up at the five-mile access control points would remain, even once the ten-mile access control points are implemented.

2.1 ANTICIPATED RESIDENT EMERGENCY EVACUATION ROUTES

Figure 2.1 shows the anticipated evacuation routes for residents living within the ten-mile zone, as they evacuate the area and travel to one of the two reception centers.

2.2 FIVE-MILE ZONE ACCESS CONTROL POINTS

A-1	North Side Reedy Point Bridge
A-2	Biddles Corner – US 13 and Port Penn Road (00002)
A-3	Boyds Corner - US 13 and Pole Bridge Road (00420)
A-4	Pole Bridge Road (00420) and Entrance Ramp of Southbound Lane to SR-1
A-5	US 13 and Bayview Road (00423)
A-6	US 13 and DEL 299 (Main Street)
A-7	DEL 299 (Old State Road) and Old Corbit Road (00424)
A-8	US 13 and Old State Road (00441)
A-9	US 13 and Fieldsboro Road (00452)
A-10	Naylor's Corner - Blackbird Landing Road (00455) and Union Church Road (00456)
A-11	DEL 9 (Flemings Landing Road) and Walker School Road (00045)
A-12	DEL 9 (Thomas Landing Road) and DEL 299 (Taylors Bridge Road)
A-13	DEL 9 and Cedar Swamp Road (00453)
A-14	DEL 9 and Thorofare Neck Road (00491)
A-15	DEL 9 and Deakyneville Road (00492)

Traffic will be permitted to travel north & south on SR 1 and US 13, but all points allowing access to the east will be blocked. Due to traffic volumes, the intersection of SR 1 and Route 299 should be monitored and may require additional traffic control.

2.3 TEN-MILE ZONE ACCESS CONTROL POINTS

B-1	Hamburg Road/Tybouts Corner Road (00381) and DEL 9 (River Road)
B-2	DEL 7 (Bear Corbitt Road) and DEL 71 (Red Lion Road)
B-3	US 13 and DEL 71 (Red Lion Road)
B-4	SR-1 and US 40/US 301 (Pulaski Highway)
B-5	DEL 72 and Entrance Ramp to Southbound Lane of SR-1
B-6	DEL 71 (Red Lion Road) and DEL 72 (Wrangle Hill Road)
B-7	Kirkwood St. Georges Road (00409) and DEL 71 (Red Lion Road)
B-8	Conrail Chesapeake and Delaware (C&D) Canal Crossover
B-9	Lorewood Grove Road (00412) and Old Summit Bridge Road (00063)
B-10	Mount Pleasant – US 301/DEL 71 (Summit Bridge Road) and DEL 896 (Boyd's Corner Road)
B-11	US 301/DEL 71 (Summit Bridge Road) and Armstrong Corners Road (00429)
B-12	Middletown - Cedar Lane (00427) and DEL 71 (North Broad Street)
B-13	Middletown - DEL 299 (West Main Street) and US 301 (Summit Bridge Road)
B-14	St. Anne's Church Road (00447) and Wiggins Mill Road (00446)
B-15	Wiggins Mill Road (00446) and Green Giant Road (00458)
B-16	Taylor's Corner - Caldwell Corner Road (00025) and Grears Corner Road (00459)
B-17	Dexter Corner Road (00036) and Grears Corner Road (00459)
B-18	Dexter Corner Road (00036) and Blackbird Station Road (00463)
B-19	Dexter Corner Road (00036) and Oliver Guessford Road (00472)
B-20	Vandyke Greenspring Road (00047) and Blackbird Forest Road (00471)
B-21	Vandyke Greenspring Road (00047) and Blackbird-Greenspring Road (00484)
B-22	Vandyke Greenspring Road (00047) and Massey Church Road (00470)
B-23	Vandyke Greenspring Road (00047) and Duck Creek Road (Road 486)
B-24	US 13 and Paddock Road (00030)
B-25	Smyrna Landing Road (00485) and DEL 6 (Commerce Street)
B-26	DEL 6 (Commerce Street) and Lighthouse Road (00082)
B-27	DEL 6 (Commerce Street) and Gravesend Road (00319)
B-28	DEL 6 (Woodland Beach Road) and DEL 9 (Hay Point Landing Road)
B-29	US 13 and South Smyrna Eastbound Ramp to SR-1
B-30	Northbound lanes on SR-1 at Exit 114 to South Smyrna

2.4 SUMMARY OF EQUIPMENT NEEDS

Figures 2.4 and 2.5 show the anticipated resource and equipment needs for implementing the five-mile and ten-mile access control points.

Access Control Point Inventory - 5 mile

Control Point	Traffic Cones	Arrow Boards	VMS	DeIDOT Trucks	DSP	Barricade
A-1	0	0	0	0	1	1
A-2	35	0	0	0	1	1
A-3	75	0	0	0	2	1
A-4	45	0	0	0	1	1
A-5	45	0	0	0	1	1
A-6	0	0	0	0	1	1
A-7	0	0	0	0	1	1
A-8	41	0	0	0	1	1
A-9	40	0	0	0	1	1
A-10	0	0	0	0	1	1
A-11	0	0	0	0	1	1
A-12	0	0	0	0	1	1
A-13	0	0	0	0	1	1
A-14	0	0	0	0	1	1
A-15	0	0	0	0	1	1
Totals	231	0	0	0	16	15

Figure 2.4: Inventory of Equipment Needs for 5 mile Access Control Points

Traffic Operations Manual
Access Control Points

Access Control Point Inventory - 10 mile

Control Point	Traffic Cones	Arrow Boards	VMS	DeIDOT Trucks	DSP	Barricade
B-1	0	0	0	0	1	2
B-2	0	0	0	0	1	3
B-3	51	2	2	0	2	1
B-4	44	2	2	0	1	2
B-5	84	2	0	0	1	2
B-6	43	0	0	0	1	1
B-7	0	0	0	0	1	1
B-8	0	0	0	0	0	0
B-9	0	0	0	0	1	1
B-10	41	0	0	0	2	1
B-11	26	0	0	0	1	1
B-12	0	0	0	0	1	1
B-13	51	0	0	0	1	1
B-14	0	0	0	0	1	1
B-15	0	0	0	0	1	2
B-16	0	0	0	0	1	1
B-17	0	0	0	0	1	2
B-18	0	0	0	0	1	1
B-19	0	0	0	0	1	1
B-20	0	0	0	0	1	1
B-21	0	0	0	0	1	1
B-22	0	0	0	0	1	1
B-23	0	0	0	0	1	1
B-24	35	0	0	0	2	1
B-25	0	0	0	0	1	1
B-26	0	0	0	0	1	2
B-27	0	0	0	0	1	1
B-28	0	0	0	0	1	1
B-29	60	0	0	0	1	0
B-30	50	2	2	0	1	0
Totals	485	8	6	0	32	35

Figure 2.5: Inventory of Equipment Needs for 10 mile Access Control Points